

CLAIMS

WE CLAIM:

1. In a baler of a type having a frame and a rotor operatively rotatably attached to said frame for moving a windrow of crop material into a baling chamber and a rotor sprocket operatively attached to said rotor for turning the rotor in a first rotary direction to move the crop material toward the baling chamber, a shaft disposed for rotation about a first axis, and a driver sprocket operatively connected to said shaft and to a primary source of rotary power for selectively rotating said rotor sprocket and thereby rotating said rotor in the first rotary direction to move crop toward said baling chamber, said driver sprocket being rotatably disposed about the first axis; the improvement comprising:

a hub operatively attached to said frame and being rotatably and slidably operably disposed on said shaft;

a reverser driven sprocket operatively attached to said hub for rotation about the first axis with said hub;

a reverser gear operatively attached to the hub for rotation with the hub about the first axis, said reverser gear having teeth thereon;

a spring for biasing said hub to a first lateral position along said shaft for operably engaging said driver sprocket whereby said hub will rotate with said driver sprocket, thereby causing the reverser driven sprocket and said reverser gear to rotate with said hub;

a spreader having a first, second and third position for selectively moving the hub to a second lateral position when the spreader is in the second position thereof

whereby the hub is not in operative engagement with said driver sprocket and whereby the hub can rotate on said shaft about said first axis said hub being engaged for rotary movement with said driver sprocket when said spreader is in the first position thereof;

a driver frame operatively attached to said spreader and also having said first, second and third positions; and

a drive bolt on said drive frame for operatively engaging the teeth of said reverser gear when said driver frame moves from the second to the third position thereof for causing the hub, reverser gear and reverser driven sprocket to rotate in a direction opposite to the direction of rotation of said reverser driver sprocket whereby the rotor will be turned in a direction opposite to said first rotary direction to thereby move crop material away from said baling chamber.

2. In a baler of a type having a frame and a rotor operatively rotatably attached to said frame for moving a windrow of crop material into a baling chamber and a rotor sprocket operatively attached to said rotor for turning the rotor in a first rotary direction to move the crop material toward the baling chamber, a shaft disposed for rotation about a first axis, and a driver sprocket operatively connected to said shaft and to a primary source of rotary power for selectively rotating said rotor sprocket and thereby rotating said rotor in the first rotary direction to move crop toward said baling chamber, said driver sprocket being rotatably disposed about the first axis; the improvement comprising:

a hub operatively attached to said frame and being rotatably and slidably operably disposed on said shaft;

a reverser driven sprocket operatively attached to said hub for rotation about the first axis with said hub;

a spring for biasing said hub to a first lateral position along said shaft for operably engaging said driver sprocket whereby said hub will rotate with said reverser driver sprocket, thereby causing the driven sprocket to rotate with said hub;

a spreader having a first and a second position for selectively moving the hub to a second lateral position when the spreader is in the second position thereof whereby the hub is not in operative engagement with said reverser driver sprocket and whereby the hub can rotate on said shaft about said first axis, said hub being engaged for rotary movement with said reverser driver sprocket when said spreader is in the first position thereof; and

driver frame means operatively attached to said spreader for selectively causing the hub and reverser driven sprocket to rotate in a direction opposite to the direction of rotation of said driver sprocket at a time when said hub is not in operative engagement with said driver sprocket, whereby the rotor will be turned in a direction opposite to said first rotary direction to thereby move crop material away from said baling chamber.

3. In a baler of a type having a frame, a baling chamber, a power transmission system for transferring power from a prime mover to a drive system, bale forming elements that are powered by the drive system, and a rotor operatively rotatably attached to said frame and powered by the drive system for moving and/or conditioning a windrow of crop material, a method for clearing a plug comprising:

providing overload protection for baler such that power transmission to baler is interrupted upon encountering the plug situation; and

providing a selective drive mechanism that enables the rotor to be selectively disengaged from the rest of the drive such that subsequent re-engagement of power transmission system transfers all power to the bale forming elements.

4. The method of claim 3 further comprising providing a rotor reversing mechanism which operates in conjunction with the selective drive mechanism to partially rotate the rotor in a reverse direction upon activation of the selective drive mechanism.